

A TAXONOMIC STUDY ON THE GENUS ZHENGITETTIX LIANG (ORTHOPTERA, TETRIGOIDEA, SCELMENIDAE)

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Abstract The genus *Zhengitettix* Liang (Orthoptera, Scelmenidae) is reviewed. One new species, *Zhengitettix nigrofemurus* sp. nov. is described. Type specimens are preserved in the Institute of Zoology, Shaanxi Normal University Xi'an, China

Key words Orthoptera, Scelmenidae, *Zhengitettix* Liang, new species

The genus *Zhengitettix* was erected by Liang in 1994. It is a small genus of Scelmenidae with four species known from China. In this paper we describe a new species, *Zhengitettix nigrofemurus* sp. nov. from Guizhou, China.

Zhengitettix Liang, 1994

Zhengitettix Liang, 1994. Entomological Research, 1: 33; Liang and Zheng, 1998. Fauna Sinica, Insecta, Vol. 12, Orth. Tetrigoidea, 75; Zheng, 2005. Fauna of Tetrigoidea from Western China, 49; Deng, Zheng & Wei, 2007. Fauna of Tetrigoidea from Yunnan and Guangxi, 42.

Type species: *Zhengitettix hainanensis* Liang, 1994

Body small. Head distinctly exserted above pronotal surface, vertex very narrow, not wider than first segment of antennae at the anterior margin, eyes draw to each other in front giving the triangular shape to vertex. In profile, frontal costa arcuate between antennae. Eyes strongly exserted above pronotal surface, paired ocelli placed below middle of the eyes. Antennae filiform, inserted below lower margins of eyes.

Pronotum truncate anteriorly, midkeel of pronotum conspicuous. Pronotum elongate, extending far beyond top of hind femora; posterior angles of lateral lobes of pronotum with a strong spine projecting outwards. Tegmina long oval, apex round. Wings reaching caudal end of pronotum. First and third tarsi of hind leg nearly equal in length.

Species of the genus *Zhengitettix* Liang are typical inhabitants of moist places in tropical rainforests, such as moist stone on border of streams. They feed on mosses and other forms of humus, they generally overwinter as adults.

Key to the known species of *Zhengitettix* Liang, 1994

1. Frontal ridge sulcus distinctly wider than scapus of antenna; posterior angles of lateral lobes of pronotum triangular, apices sharp; sterna of abdomen brown *Z. hainanensis* Liang
- Frontal ridge sulcus not wider than scapus of antenna; posterior angles of lateral lobes of pronotum long spine-like, apices acute; sterna of

- abdomen black 2
2. Posterior angles of lateral of pronotum with a forward curved spine *Z. curvispinus* Liang, Jiang et Liu
- Posterior angles of lateral lobes of pronotum oblique backward or transverse 3
3. Posterior angles of lateral lobes of pronotum oblique backward; antennae inserted under the lower margin of eyes; hind process reaching the middle of hind tibia *Z. obliquispicula* Zheng et Jiang
- Posterior angles of lateral lobes of pronotum transverse 4
4. Antennae inserted between the lower margin of eyes; paired ocelli placed between the middle of the eyes; hind tibia black, with light ring in the base and middle *Z. transpicula* Zheng et Jiang
- Antennae inserted below the lower margin of eyes; paired ocelli placed below the middle of the eyes; hind tibia brown *Z. nigrofemurus* sp. nov.

1 *Zhengitettix hainanensis* Liang, 1994

Zhengitettix hainanensis Liang, 1994, Entomological Research, 1: 33; Liang and Zheng, 1998, Fauna Sinica, Insecta, Vol. 12, Orth. Tetrigoidea, 75.

Specimens examined. China, Hainan, Baisha, 12, 9, 2 Feb. 2009; Hainan, Jianfengling, 19, 3, 7 Feb. 2009.

Distribution. China (Hainan).

2 *Zhengitettix curvispinus* Liang, Jiang et Liu, 2007

Zhengitettix curvispinus Liang, Jiang et Liu, 2007. Acta Zootaxonomica Sinica, 32 (3): 659-660.

Specimens examined. China, Guangxi, Tiane, 22, 11, 23 July 2008; Guangxi, Nandan, 2, 7, 22 July 2008.

Distribution. China (Guangxi).

3 *Zhengitettix obliquispicula* Zheng et Jiang, 2005

Zhengitettix transpicula Zheng et Jiang, 2005, Oriental Insects, 39: 175-185; Zheng, 2005, Fauna of Tetrigoidea from Western China, 50-51, figs. 104-106; Deng, Zheng and Wei, 2007, Fauna of the Tetrigoidea from Yunnan and Guangxi, 44.

Specimens examined. China, Guangxi, Tianlin, 2, 1 June 2002.

Distribution. China (Guangxi).

4 *Zhengitettix transpicula* Zheng et Jiang, 2002

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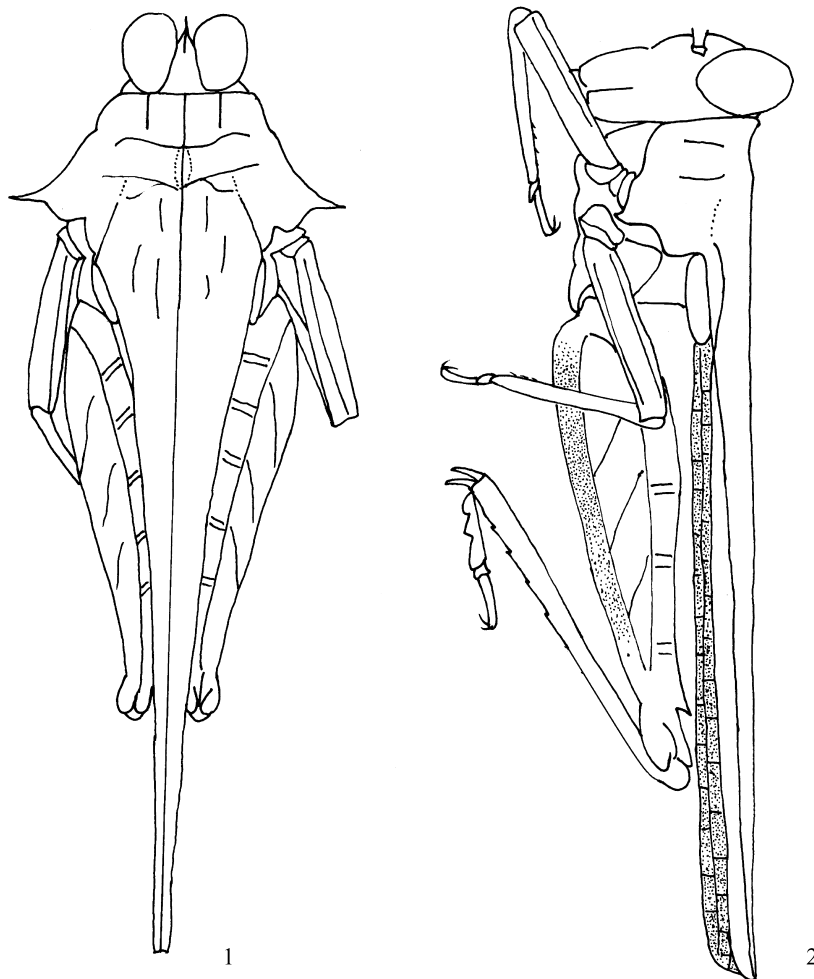
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Zhengitettix transpicula Zheng et Jiang, 2002, Zoological Research, 23 (5): 410-411, figs 1-4; Zheng, 2005, Fauna of Tetrigoidea from Western China, 49-50, figs 100-103; Deng, Zheng and Wei, 2007, Fauna of Tetrigoidea from Yunnan and Guangxi, 43.

Specimen examined. China, Guangxi, Fengcheng, 1, 2 Dec 2001.

Distribution. China (Guangxi).

5 *Zhengitettix nigrofemurus* sp. nov. (Figs 1-2)



Figs. 1-2 *Zhengitettix nigrofemurus* sp. nov., body of male 1. Dorsal view. 2. Lateral view.

Description. body small, slender. Head distinctly exserted above pronotal surface, vertex very narrow, a little narrower in front, eyes draw to each other in front giving the triangular shape to vertex, median carina conspicuous. In profile frontal ridge slightly protruding archly between antennae, longitudinal furrow narrower than first segment of antennae. Antenna filiform, 14-segmented, inserted below the lower margin of eyes. Eyes globose, strongly exserted above the pronotal surface. Lateral ocelli placed between one third of anterior margins of eyes. Anterior margin of pronotum straight, disc of pronotum with numerous abbreviated carinae between shoulders, midkeel of pronotum entire, upper margin of pronotum straight in profile. Lateral keels of

Diagnosis *Zhengitettix nigrofemurus* sp. nov. is similar to *Z. transpicula* Zheng et Jiang, 2002, but differs in: longitudinal furrow narrower than first segment of antennae; antenna inserted below the lower margin of eyes; lateral ocelli placed between one third of anterior margins of eyes; mid femur wider than tegmina; third pulvillus of first segment of hind tarsus longer than first and second; hind tibia brown.

prozona parallel, humeral angle of obtuse shape. Pronotum elongate, extending far beyond the top of hind femora, reaching the middle of hind tibia. Posterior angles of lateral lobes of pronotum directed outwards, apical spine sickle-shaped, transverse; posterior margin of lateral lobes of pronotum with two concavities. Tegmina long oval, apex rounded. Wings reaching apex of hind process of pronotum. Upper and lower margins of fore femur and mid femur straight, mid femur wider than tegmina. Length of hind femur as 3 times as width, midkeel of upper and lower sides of hind femur dentate, antegenicular and genicular denticles acute. Outer side of hind tibia with 6-7 spines, inner side with 4-5 spines. First and third posterior tarsal segments nearly equal in length, third

pulvillus of first segment of hind tarsus longer than first and second ones, apices of all pulvilli obtuse. Subgenital plate short, cone-shaped.

Body dark brown, frontal costa black. Hind wing black. Fore and middle femora and tibia each with two dark transverse spots; hind femur brown, lower outer side black. Hind tibia brown. Sterna of abdomen black, Subgenital plate brown.

Female Unknown.

. Measurements. Length of body 6.5-7.0 mm, length of pronotum 9.0-9.5 mm, length of hind femur 4.5-5.0 mm.

Holotype male, China, Guizhou Province, Sandu (Yaoren mountain) (26.1°N, 107.8°E; alt 700 m), 23 Aug 2008, collected by DENG Wei-An. Paratype one male, same data as holotype. Specimens are deposited in the Institute of Zoology, Shanxi Normal University, Xi'an, China.

Etymology. The name of the new species is derived from the Latin words nigro and femurus indicating lower outer side of hind femur black.

Distribution. China (Guizhou).

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郑蚱属的分类研究 (直翅目, 蚱总科, 刺翼蚱科)

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摘要 系统地研究郑蚱属种类, 共计有 5 种, 其中有 1 新种, 黑股郑蚱 *Zhengitettix nigrofemurus* sp. nov.。文中记述每个种的引证和分布地区, 并附有分种检索表。模式标本保存于陕西师范大学动物研究所昆虫标本室。

黑股郑蚱, 新种 *Zhengitettix nigrofemurus* sp. nov. (图 1~2)

新种与横刺郑蚱 *Zhengitettix transpicula* Zheng et Jiang, 2002

关键词 直翅目, 蚱总科, 刺翼蚱科, 郑蚱属, 新种.

中图分类号 Q 969.26

相似, 主要区别为: 颜面隆起纵沟狭于触角基节的宽度; 触角着生于复眼下缘之下; 中单眼位于复眼下 1/3 处; 中足股节的宽度宽于前翅的宽度; 后足跗节第 1 节下之第 3 节大于 1、2 节; 后足胫节褐色。

正模 , 贵州三都 (尧人山), 700 m, 2008-08-23, 邓维安采; **副模** 1 , 同正模。